Form 3160-3
(April 2004)

APD recd From Fimo
2006 MAR 22 AM 10

2006 JAN 24 AM 9
RECEIVED
070 FARMINGTON NM

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

CK 3/23/06 RECEIVED
070 FARMINGTON NM

1a. Type of work: ☑ DRILL ☐ REENTER	5. Lease Serial No. SF-080384
	6. If Indian, Allotee or Tribe Name
	7. If Unit or CA Agreement, Name and No.
1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	8. Lease Name and Well No. BartRyley FC#1
2. Name of Operator Synergy Operating, LLC	9. API Well No. 30-045-33660
3a. Address PO Box 5513 Farmington, NM 87499	3b. Phone No. (include area code) (505) 325-5449
	10. Field and Pool, or Exploratory Basin Fruitland Coal
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface 875' FNL, 835' FWL, Sec 10, T26N, R12W, Lat. 36.50758028 N At proposed prod. zone Same (Nad 1983) Long. 108.10512234 W	11. Sec., T. R. M. or Blk. and Survey or Area Sec 10, T26N, R12W
14. Distance in miles and direction from nearest town or post office* 5 miles northwest of Bloomfield	12. County or Parish San Juan / 13. State NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any) 875' from North Line	16. No. of acres in lease	17. Spacing Unit dedicated to this well 321.21 (N/2)
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 835' from West Line	19. Proposed Depth 1500'	20. BLM/BIA Bond No. on file NM-2559
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6076' Ground Level	22. Approximate date work will start* 03/31/2006	23. Estimated duration 30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature Patrick Hegarty	Name (Printed/Typed) ~~Glen O. Papp~~ Patrick Hegarty	Date 1-23-06
Title ~~Operations~~ Manager, Cell (505) 330-1582 OFC (505) 566-3729		
Approved by (Signature) /s/ Manuel Montoya	Name (Printed/Typed)	Date 5/31/06
Title AFM	Office FFO	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

JUN 2006
RECEIVED
OIL CONS. DIV.
DIST. 3

NMOCD

2006 MAR 22 AM 10 35

RECEIVED
070 FARMINGTON NM

2006 JAN 24 AM 9 01

RECEIVED
070 FARMINGTON NM

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
811 South First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000

Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-33600	71629	Basin FRUITLAND COAL

[4] Property Code	[5] Property Name	[6] Well Number
35751	BARTRYLEY FC	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
163458	SYNERGY OPERATING, L.L.C.	6076'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	10	26N	12W		875'	NORTH	835'	WEST	SAN JUAN

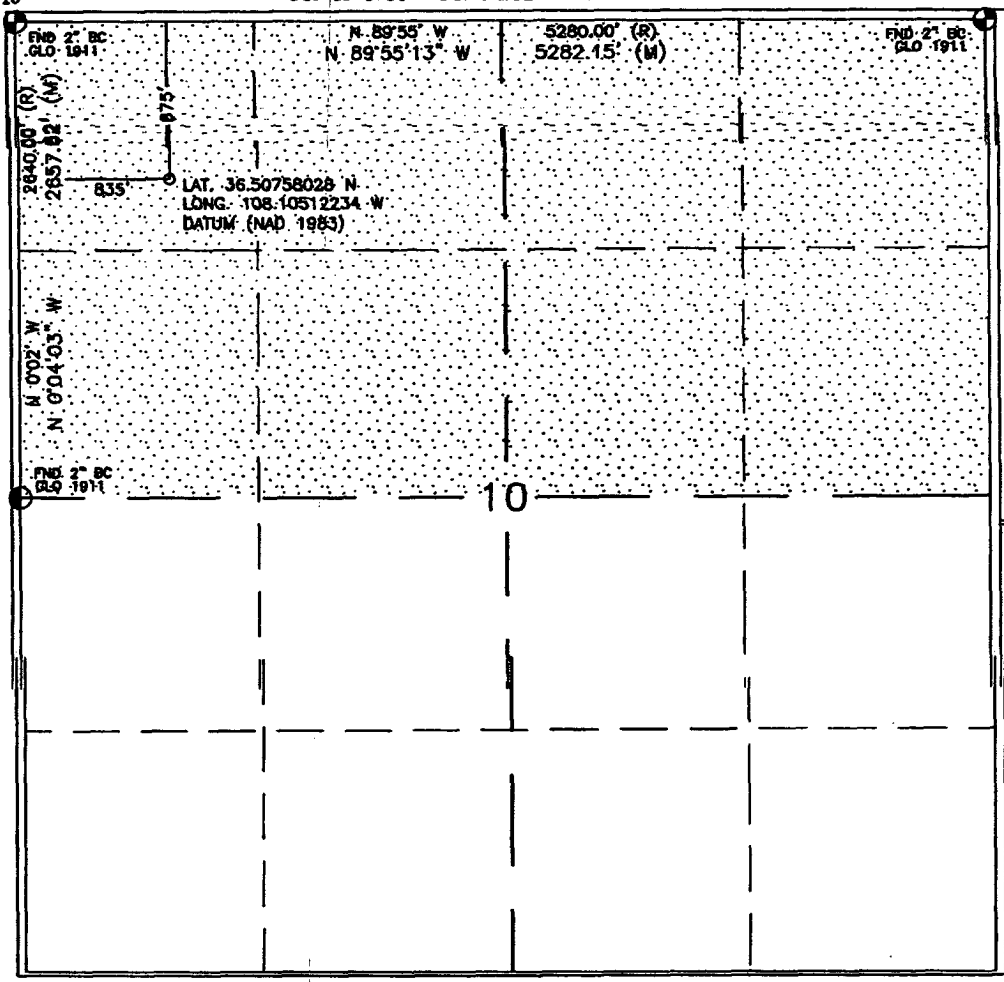
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
321.21 Acres – (N/2)			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature

Patrick Heaphy
Printed Name

Principal
Title

1-23-06
Date

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JANUARY 12, 2006
Date of Survey

Signature and Seal of Professional Surveyor:

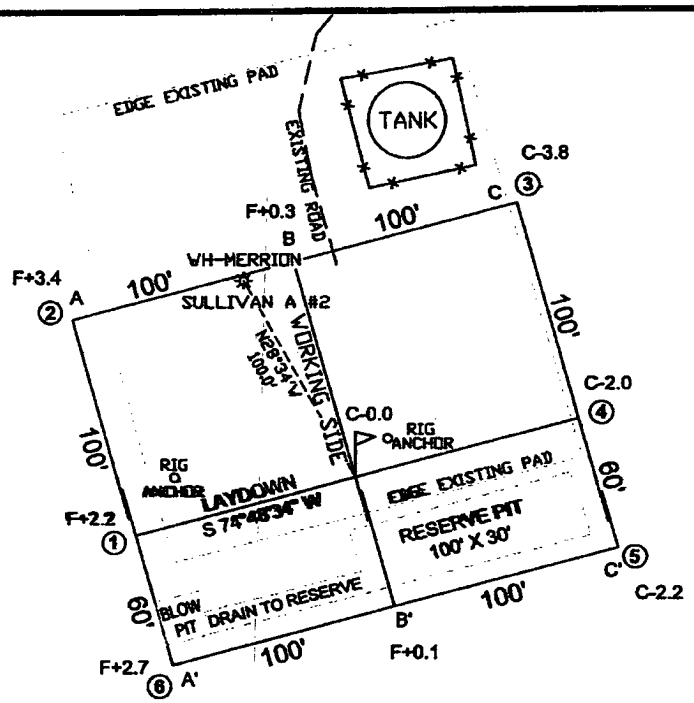
DAVID R. RUSSELL
NEW MEXICO
10201
REGISTERED PROFESSIONAL SURVEYOR

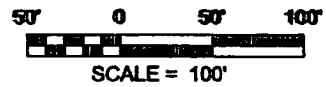
DAVID R. RUSSELL

Certificate Number 10201

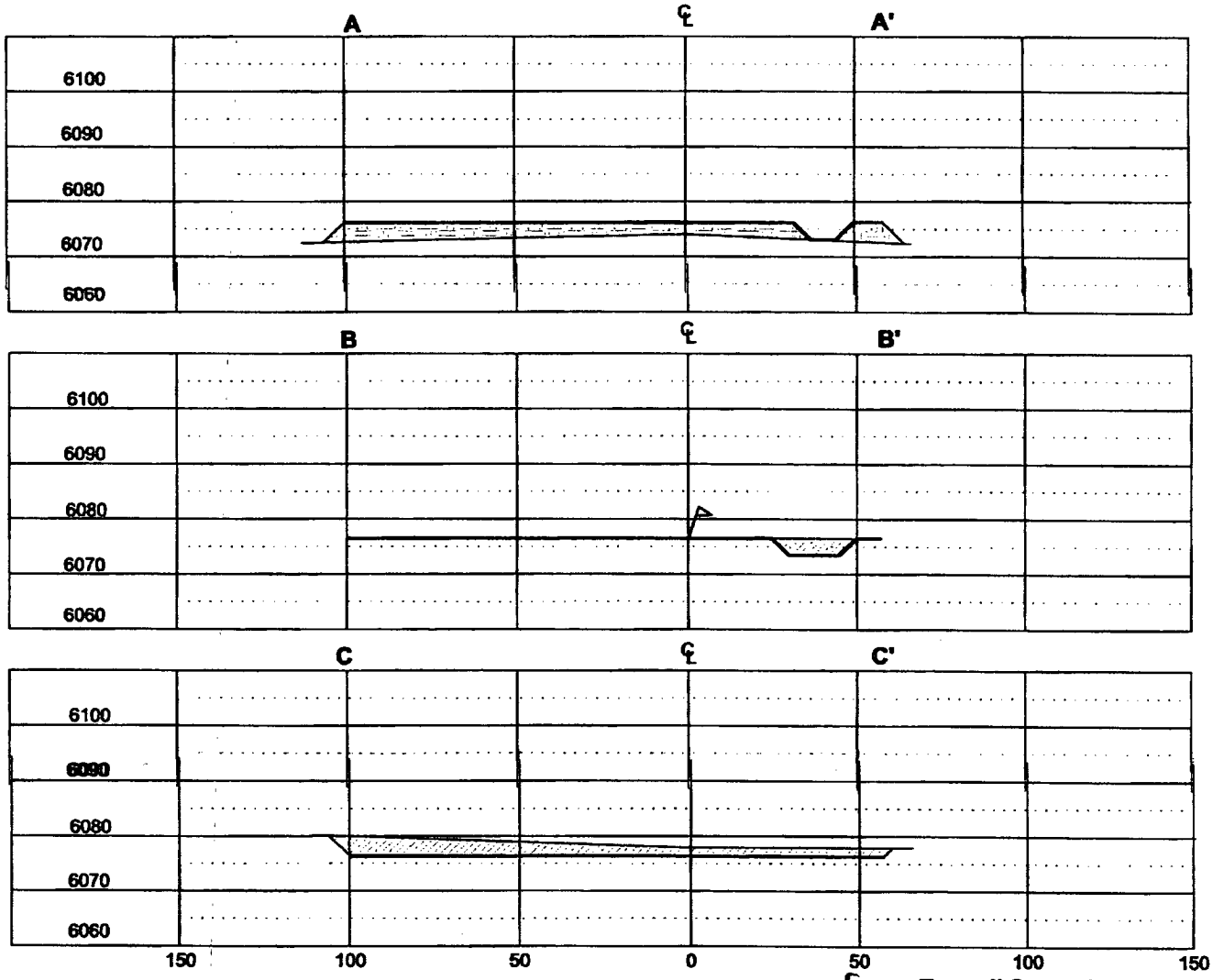
SYNERGY OPERATING, L.L.C.

BARTRYLEY FC #1
875' FNL & 835' FWL
LOCATED IN THE NW/4 NW/4 OF SEC. 10,
T26N, R12W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
ELEVATION: 6076', NAVD 88





LATITUDE: 36.50758028 N
LONGITUDE: 108.10512234 W
DATUM: NAD 83



HORIZ. SCALE: 1"=50'
VERT. SCALE: 1"=30'

Russell Surveying
1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410
Office Ph. 505-334-8637

Synergy Operating, LLC
Drilling Plan

Well Name: BartRyley FC#1

Location: 875' FNL, 835' FWL, Sec. 10, T26N, R12W, San Juan County, New Mexico
Latitude 36.50758028 N, Longitude 108.10512234 W (Nad 1983)

Field: Basin Fruitland Coal

Elevation: 6076' GL

GEOLOGIC PROGRAM

Formations	Tops/Depth	Fluids
Ojo Alamo	<100'	Possible fresh water aquifer
Kirtland	240'	None
Fruitland	915'	Natural gas & produced water
Pictured Cliffs	1269'	Natural gas & produced water
TOTAL Depth	1500'	

Logging Program:

A) Open Hole: Density + Neutron: TD to Surface Csg Shoe
B) Cased Hole: GR-CCL-CBL

Mudlogs, Cores, DST's:

No mudlogs, coring or drill-stem testing (DST's) are scheduled.

Anticipated Downhole Conditions:

It is not anticipated that any abnormal temperatures, abnormal pressures or hydrogen sulfide gas will be encountered. The maximum anticipated formation pressures are expected to be less than 1000-PSIG.

DRILLING PROGRAM

Contractor: A local rotary drilling company is yet to be determined.

Mud Program: Freshwater based mud system will be utilized. Water sourced from commercial suppliers.

Depth	Type	Viscosity	PPG
0-220'	Spud	40-50	8.4-8.9
220' - TD	Low Solids, Non-dispersed	30-60	8.4-9.5*

* Barite will be used as a weighting material if needed

Wellhead Equipment:

A 8-5/8" x 5-1/2" 2000# bradenhead will be screwed on to the top joint of the 8-5/8" surface casing.

Cementing Program:

8-5/8" Surface Casing: Pump 150-sxs (213-ft^3) Type III Cement w/ 3% $CaCl_2$ + 1/4"-#/sx Celloflake. Yield = 1.42 ft^3/sx, Slurry weight = 14.5 PPG. Cement volume is 100 % of annular excess to ensure circulation to surface. Wait on Cement (WOC) for 8-Hours. Pressure test surface casing to 1000# for 30-Minutes.

5-1/2" Production Casing:

Lead Slurry: Pump 190-sxs (409-ft^3) Premium Lite FM Cement w/ 3% $CaCl_3$ -1/4#/sx Celloflake + 0.4% FL-52 + 8% Bentonite + 0.4% Sodium Metasilicate + *3-#/sx* Pheno-Seal. . Yield = 2.15 ft^3/sx, Slurry Weight = 12.1 PPG.
Tail Slurry: Pump 100-sxs (139-ft^3) Type III Cement *w/ 1* % $CaCl_2$ + 1/4#/sx Celloflake + 0.2% FL-52 + 2-#/sx Pheno-Seal. Yield = 1.39 ft^3/sx, Slurry Weight = 14.6 PPG. Total slurry volume is 547.5-ft^3.

The projected annular open hole volume from 1500' to surface is: 267-ft^3. Cement volume is 100% excess of annular open hole volume for the lead cement slurry, to ensure circulation to surface. The job is designed to circulate the cement to surface.

Estimated Drilling Time:

Spud date will occur after the APD has been approved, the location built and a drilling contractor selected. Once drilling operations commence, it is anticipated that the drilling phase should be completed within three (3) to five (5) days.

Estimated Completion Time:

Rig completion activities are estimated to take approximately five (5) days. Surface facilities anticipated will include a rod pumping unit, separator, and one four hundred (400) bbl water production tank and a well-site compressor. No oil production is anticipated from this well.

Reserve Pit Construction/Closure:

The attached plat depicts the planned reserve pit and the proposed dimensions. The pit will be lined with an approved lining material, a minimum of a 12 mils in thickness. The pit will be constructed and closed per the November 1, 2004 NMOCD pit guideline information. A form *C-144* will be prepared and submitted for the reserve pit in conjunction with this APD submittal

Patti Heyta 1-23-06

Pressure Control/Blow Out Preventers (BOP's):

All BOP systems will be in accordance with MMS Onshore Oil & gas Order No 2. Until the drilling contract has been let, the exact make, model and pressure rating of BOP's is unknown. A typical double gate BOP with a rotating head is shown in the attached Exhibit #1. A typical Choke & Kill manifold is also shown in the attached Exhibit #1.

An upper kelly cock valve with handle and drill string safety valves for each size of drill pipe will be available on the rig floor.

BOP Testing:
220' (Surface Csg Shoe) - TD: An 11" 2000# or 3000# double gate BOP Stack & choke manifold will be utilized. All BOP systems will be tested in accordance with MMS Onshore Oil & gas Order No 2. A test plug will be used to test the BOPE, and the resultant pressures will be recorded using a test pump, calibrated test gauges and a calibrated chart recorder. A low pressure test of 250 PSIG will be held for 10 minutes, and a high pressure test will be tested to 1000 PSIG for 10-minutes. Prior to drilling out the surface casing, the 8-5/8" 24# surface casing will be tested to 1000 PSIG for 30-minutes.

Pipe rams will be hydraulically actuated at least once a day. The blind rams will be function tested on each pipe trip. All ram function testing and BOP pressure testing will be recorded on the daily IADC drilling logs.

Casing & Tubing Program:
All casing shall be new and constructed to API standards.

Hole Size	*OD*	*Weight*	*Grade*	*GL Set Depth*	*Clearance Hole/Collar*
12.250"	*8.625"*	*24 lbs/ft*	*J-55*	*0'-220'*	*1.3125"*
7.785"	*5.500"*	*15.5 lbs/ft*	*J-55*	*0'-TD (1500'+/-)*	*0.9125"*
2.375"	*2.375"*	*4.7 lbs/ft*	*J-55*	*Unknown*	

Float Equipment & Centralizers:

8-5/8" Surface Casing: Cement Guide Shoe, 1-Jt 8-5/8" casing as shoe joint and 8-5/8" casing to surface. Centralizers will be on the bottom three joints, the bottom most centralizer will be run 10' above the shoe, secured with a stop ring. The other two centralizers will be secured around the collars. Surface casing will be run to a minimum depth of 220' to ensure protection of surface waters.

5-1/2" Production Casing: A cement nose guide shoe, 1-Jt 5-1/2" casing as shoe joint, float collar w/ auto-fill, and 5-1/2" casing to surface. A centralizer will be run 10' above the shoe, secured with a stop ring, and two more centralizers will be applied around the collars of the bottom most casing joints. Additional centralizers will be deployed every sixth joint from the third most bottom joint to surface. Turbolizers will be used around the first casing collar below the base of the Ojo Alamo and a second on the first casing collar above the base of the Ojo Alamo. The Ojo Alamo will be covered with cement.

Pressure Control Equipment

Minimum 2" Choke Line.
Minimum 2" Kill Line.
At Least One 2" Minimum Kill Line Valve.

Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.

2. Safety valves and necessary subs to fit all drill string in use will be available.

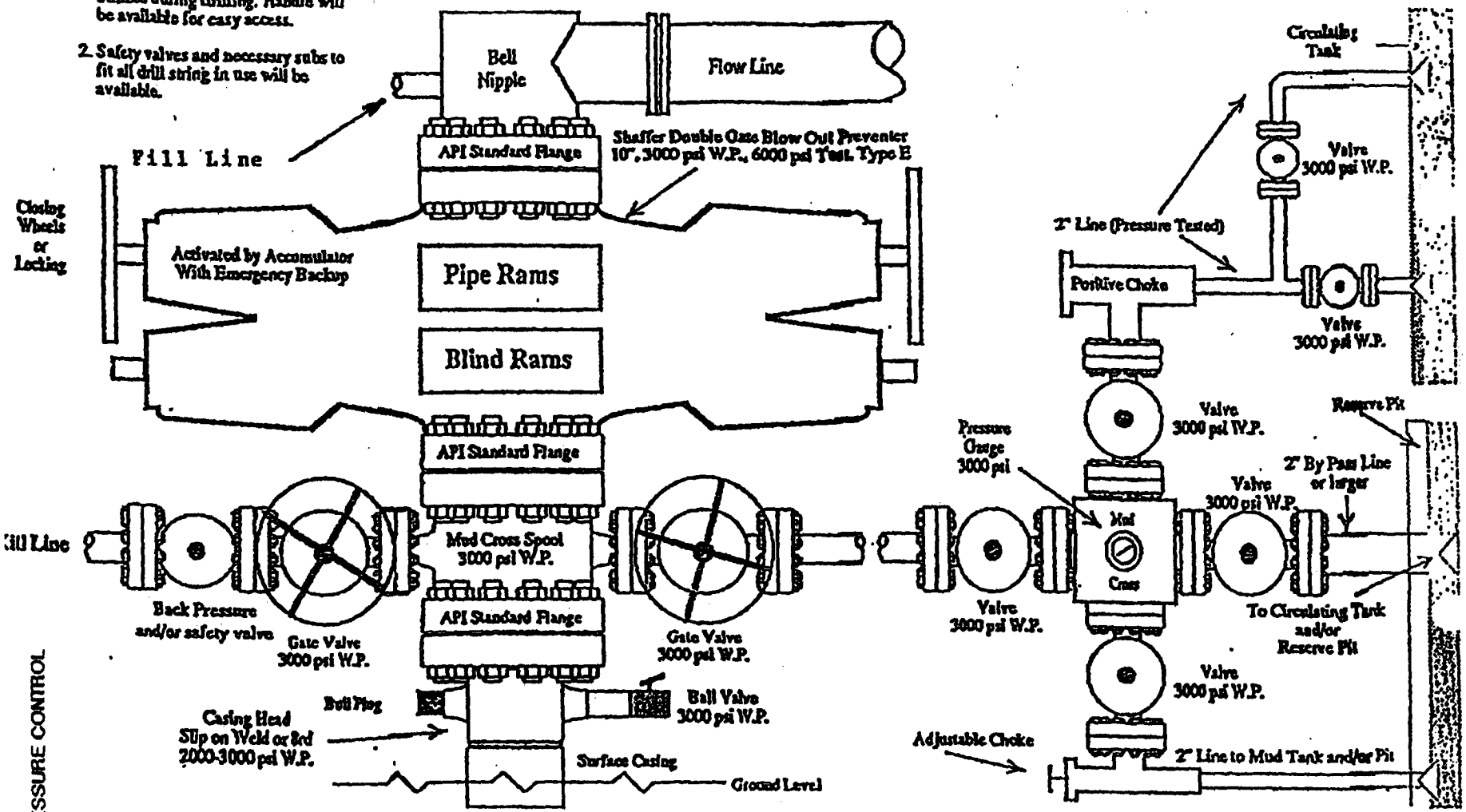


EXHIBIT 1

KELLY P.C. #1
EXHIBIT "D"- PRESSURE CONTROL EQUIPMENT

Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be caried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.